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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Weintraub et al.) Group Art Unit: Unknown
App. No.	:	09/813,398)
Filed	:	March 20, 2001)
For .	:	CYSTINE KNOT GROWTH FACTOR MUTANTS)))
Examiner	:	Unknown)))

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Enclosed is form PTO-1449 listing references that are also enclosed. This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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SHEET 1 OF 6 ATTY, DOCKET NO. UOFMD.003C1 APPLICATION NO. 09/813398 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT
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			U.S. PATENT DOCUMENTS	: •			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME		CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)

	FOREIGN PATENT DOCUMENTS							
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	1	EPO 0 404 458 A2	6/15/90	EPO			Х	
	2	PCT/EP89/01017	8/30/89	PCT			· x	

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
/	3	Albanese, et al., Development of a bioassay for FSH using a recombinant human FSH receptor and a cAMP responsive luciferase reporter gene, Molecular and Cellular Endocrinology 101 (1994) 211-219
√	4	Albanese, et al., Novel Cyclic Adenosine 3', 5"- Monophosphate Response Element in the Human Chorionic Gonadotropin β-Subunit Gene, Molecular Endocrinology 5:693-702, 1991
/	5	Amédée, et al., Osteogenin (bone morphogenic protein 3) inhibits proliferation and stimulates differentiation of osteoprogenitors in human bone marrow, Differentiation (1994) 58:157-164
\	6	Antonipillai, et al., Activin and inhibin have opposite effects on steroid 5a-reductase activity in genital skin fibroblasts, Molecular and Cellular Endocrinology 107 (1995) 99-104
V	7	Ascoli, Mario, Characterization of Several Clonal Lines of Cultured Leydig Tumor Cells: Gonadotropin Receptors and Steroidogenic Responses, Endocrinology, Vo. 108, pp. 88-95
	8	Assoian, et al., Transforming Growth Factor-\$\beta\$ in Human Platelets, The Journal of Biological Chemistry, Vol. 258, No. 11, pp. 7155-7160 (1983)
/	9	Baenziger, J. U., Gly\cosylation and Glycoprotein Hormone Function,
V	10	Barde, Yves-Alain, Trophic Factors and Neuronal Survival, Neuron, Vo. 2, 1525-1534 June, 1989
1	11	Benoist, et al., In vivo sequence requirements of the SV40 early promoter region, Nature, Vo. 290, March 1981, pp 304-310
1	12	Berkemeier, et al., Neurotrophin-5: A Novel Neurotrophic Factor That Activates trk and trkB, National Cancer Institute
√	13	Blahd, et al., Radioactive Iodine (I ¹³¹) in the Postoperative Treatment of Thyroid Cancer, Cancer, Vo. 15, July 1960, pp. 745-756
/	14	Blumenfeld, et al., Luteal dysfunction in ovulation induction: the role of repetitive human chorionic gonadotropin supplementation during the luteal phase, Fertility and Sterility, Vo. 50, September 1988, pp. 403-407
√	15	Braverman, et al., Recombinant Human Thyrotropin Stimulates Thyroid Function and Radioactive Iodine Uptake in the Rhesus Monkey, Jr. of Cl. Endo. and Metabolism, Vol. 74, No. 5, pp. 1135-1139 1992
	16	Brinster, et al., Regulation of metallothionein-thymidine kinase fusion plasmids injected into mouse eggs, Nature, Vol. 296, March 1982, pp. 39-42
	17	Brucker-Davis, et al., Genetic and Clinical Features of 42 Kindreds with Resistance to Thyroid Hormone, Annals of Internal Medicine, Vol. 123, No. 8, October, 1995, pp. 572-583
$\sqrt{}$	18	Brunner, et al., Site-Directed Mutagenesis of Glycosylation Sites in the Transforming Growth Factor-6 1 (TGF\$1) and TGF\$2 (414) Precursors and of Cysteine Residues within Mature TGF\$1: Effects on Secretion and Bioactivity, Mol. Endo. 1992, Vol. 6, No. 10, pp. 1691-1700

EXAMINER	DATE CONSIDERED
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.Weintraub, et al.

FILING DATE GROUP
March 20, 2001 Unknown

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
V	19	Buchwald, et al., Long-term, continuous intravenous heparin administration by an implantable infusion pump in ambulatory patients with recurrent venous thrombosis, Surgery, October 1980, pp. 507-516
7	20	Cate, et al., Isolation of the Bovine and Human Genes for Müllerian Inhibiting Substance and Expression of the Human Gene in Animal Cells, Cell, Vol. 45, pp. 685-698, June, 1986
١	21	Celeste, et al., Identification of transforming growth factor β family members present in bone-inductive protein purified from bovine bone, Proc. Natl. Acad. Sci. USA, Vol. 89, pp. 9843-9847, December 1990
1	22	Centrella, et al., Skeletal tissue and transforming growth factor β, The FASEB Journal, Vol. 2, December 1988, pp. 3066 - 3073
1	23	Cheifetz, et al., The Transforming Growth Factor-\$\beta\$ System, a Complex Pattern of cross-reactive Ligands and Receptors, Cell, Vol. 48, pp. 409-415, February, 1987
1	24	Chou, et al., Prediction of Protein Conformation, Biochemistry, Vol. 13, No. 2, 1974, pp. 222
V	25	Cole, et al., Recombinant Human Thyroid Stimulating Hormone: Development of a Biotechnology Product for Detection of Metastatic Lesions of Thyroid Carcinoma, Bio/Technology, Vol. 11, September 1993, pp. 1014-1024
1	26	Derynck, et al., A new type of transforming growth factor-β, TGF-β3, IRL Press Limited, Oxford, England pp. 3737-3743
	27	Dijke, et al., Identification of another member of the transforming growth factor type β gene family, Proc. Natl. Acad. Sci. USA, Vol. 85, pp. 4715-4719, July 1988
\	28	Donahoe, et al., A Graded Organ Culture Assay for the Detection of Mullerian Inhibiting Substance, Journal of Surgical Research, 23, 141-148 (1977)
/	29	During, et al., Controlled Release of Dopamine from a Polymeric Brain Implant: In Vivo Characterization, Annals of Neurology, Vol. 25, No. 4, April 1989 pp. 351 -356
/*	30	East-Palmer, et al., A Novel, Nonradioactive in Vivo Bioassay of Thyrotropin (TSH), THYROID, Vol. 5, Number 1, 1995, pp. 55 - 59
/	31	Ferrara, et al., Pituitary Follicular Cells Secrete a novel heparin-binding growth factor specific for vascular endothelial cells, Biochem. and Biophys. Res. Communications, Vol. 161, No. 2, 1989, pp. 851-858
	32	Fiebich, et al., Synthesis and assembly of functionally active human vascular endothelial growth factor homodimers in insect cells, FEBS, 1993
	33	Forage, et al., Cloning and sequence analysis of cDNA species coding for the two subunits of inhibin from bovine follicular fluid, Proc. Natl. Acad. Sci. USA Vol. 83, pp. 3091 - 3095, May 1986
1	34	Frolik, et al., Characterization of a Membrane Receptor for Transforming Growth Factor-β in Normal Rat Kidney Fibroblasts, The Journal of Biological Chemistry, Vol. 259, No. 17, pp. 10995 - 11000, 1984
√	35	Giese, et al., The Role of Individual Cysteine Residues in the Structure and Function of the v-sis Gene Product, Science, Vol. 236, June 1987, pp. 1315 - 1318
/	36	Goodson, J. Max, Medical Applications of Controlled Release, Dental Applications, Vol. II, Chapter 6, pp. 115 - 138
1	37	Gote, et al., Generation of human monoclonal antibodies reactive with cellular antigens, Proc. Natl. Acad. Sci. USA, Vol. 80, pp. 2026 - 2030. April 1983
/*	38	Grossmann, et al., Novel Insights into the Molecular Mechanisms of Human Thyrotropin Action: Structural, Physiological, and Therapeutic Implications for the Glycoprotein Hormone Family, Endocrine Review, Vol. 18, No. 4, pp. 476 - 501, August 1997
/	39	Grossmann, et al., Human Thyroid-stimulating Hormone (hTSH) Subunit Gene Fusion Produces hTSH with Increased Stability and Serum Half-life and Compensates for Mutagenesis-induced Defects in Subunit Association, The Journal of Biological Chemistry, Vo. 272, No. 34, pp. 21312-21316, 1997
/	40	Grossmann, et al., Role of the Carboxy-Terminal Residues of the a-Subunit in the Expression and Bioactivity of HumanThyroid-Stimulating Hormone, Molecular Endocrinology, 1995, pp. 948-958
√ .	41	Grossmann, et al., Expression of Human Thyrotropin in Cell Lines with Different Glycosylation Patterns Combined with Mutagenesis of Specific Glycosylation Sites, The Journal of Biological Chemistry, Vol. 270, No. 49, pp. 29278 - 29385, 1995
	42	Grossmann, et al., A rational design strategy for protein hormone superagonists, Nature Biotechnology, Vol. 16, Sept. 1998, pp. 871 - 875
√	43	Grossmann, et al., Expression of Biologically Active Human Thyrotropin (hTSH) in a Baculovirus System: Effect of Insect Cell Glycosylation on hTSH Activity in Vitro and in Vivo, Endocrinology, Vol. 138, No. 1, pp. 92 - 100, 1997

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GROUP Unknown

EXAMINER OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) INITIAL Grossmann, et at., Site-Directed Mutagenesis of Amino Acids 33-44 of the Common a-Subunit Reveals Different Structural Requirements for Heterodimer Expression among the Glycoprotein Hormones and Suggests that Cyclic Adenosine 3',5'-Monophosphate Production and Growth Promotion are Potenially V X Dissociable Functions of Human Thyrotropin, Molecular Endocrinology, 1996, ppl. 769 -779 Grossmann, et al., Substitution of the Seat-belt Region of the Thyroid-stimulating Hormone (TSH) β-Subunit with the Corresponding Regions of Choriogonadotropin or Follitropin Confers Luteotropic but not Follitropic Activity to Chimeric TSH, The Journal of Biological Chemistry, Vol. 272, No. 24, pp. 15532-15540, 1997 Hallböök, et at., Evolutionary Studies of the Nerve Growth Factor Family Reveal a Novel Member Abundantly Expressed in Xenopus Ovary, Neuron, Vol. 6, 845-858, May 1991 Hauschka, et al., Growth Factors in Bone Matrix, The Journal of Biological Chemistry, Vol. 261, No. 27, September 1986, pp. 12665-12674 Heine, et al., Role of Transforming Growth Factor-& in the Development of the Mouse Embryo, The Journal of Cell Biology, Vol. 105, December 1987, pp. 48 49 Heldin, Carl-Henrik, Structural and functional studies on platelet-derived growth factor, Oxford University Press, pp. 4251-4259 Heuckeroth, et al., Neurturin and GDNF Promote Proliferation and Survival of Enteric Neuron and Glial Progenitors in Vitro, Developmental Biology 200, 116-129 (1998 51 Ho, et al., Site-directed mutagenesis by overlap extension using the polymerase chain reaction, Gene. 77 1989, pp. 51-59 52 Hohn, et al., Identification and characterization of a novelmember of the nerve growth factor/brain-derived neurotrophic factor family, NATURE, Vol. 344, March 1990 pp. 339 - 341 53 Holland, et al., Nerve Growth Factor in Different Drystal Forms Displays Structural Flexibility and Reveals Zinc Binding Sites, J. Mol. Biol. (1994) 239 pp.385-400 54 Hopp, et al., Prediction of protein antigenic determinants from amino acid sequences, Proc. Natl. Acad. Sci. USA, Vol. 78, No. 6, pp. 3824-3828 1981 55 Howard III, et al., Intracerebral drug delivery in rats with lesion-induced memory deficits, J. Neurosurg. 71:105-112, 1989 Huse, et al., Generation of a Large Combinatorial Library of the Immunoglobulin Repertoire in Phage Lambda, Science, Vol. 246, December 1989, pp. 1275-1281 57 Hutchison, III, et al., Mutagenesis at a Specific Position in a DNA Sequence, The Journal of Biological Chemistry, Vol. 253, No. 18, September, 1978, pp.6551-6560 58 Jakowłew, et al., Complementary Deoxyribonucieic Acid Cloning of a Messenger Ribonucieic Acid Encoding Transforming Growth Factor ß 4 from Chicken Embryo Chondrocytes, Molecular Endocrinology, 1988, pp. 1186-1195 Jia, et al., Luminescence Luteinizing Hormone/Choriogonadotropin (LH/CG) Bioassay: Measurement of Serum Bioactive LH/CG during Early Pregnancy in 59 Human and Macaque, Biology of Reproduction 49, pp. 1310-1316 (1993) Joliot, et al., Antennapedia homeobox peptide regulates neural morphogenesis, Proc. Natl. Acad. Sci. USA, Vol. 88, pp. 1864-1868, March 1991 60 61 Joshi, et al., Recombinant Thyrotropin Containing a &-Subunit Chimera with the Human Chorionic Gonadotropin- & Carboxy-Terminus is Biologically Active, with a Prolonged Plasma Half-Life: Role of Carbohydrate in Bioactivity and Metabolic Clearance, Endocrinology, Vol. 136, No. 9, pp. 3839-3848, Kakihuma, et al., The Human Thyrotropin (TSH) Receptor in a TSH binding inhibition Assay for TSH Receptor Autoantibodies, Journal of Clinical 62 Endocrinology and Metabolism, Vol. 82, No. 7, pp. 2129-2134, 1997 63 Kasasa, et al., The effect of PDGF, TGF- B and IGF in combination on androgen metabolism by fibroblasts, J. Clin. Periodontol, 1998, pp. 640-646 64 Keyt, et al., Identification of Vascular Endothelial Growth Factor Determinants for Binding KDR and FLT-1 Receptors, The Journal of Biological Chemistry, Vol. 271, No. 10, March 1966, pp. 5638-5646 65 Kikuchi, et al., Effects of Various Growth Factors and Histamine on Cultured Keloid Fibroblasts, Dermatology 1995, 190:4-8 66 Köhler, et al., Continuous cultures of fused cells secreting antibody of predefined specificity, Nature, Vol. 256, August 1975 pp. 495-497 Kondaiah, et al., Identification of a Novel Transforming Growth Factor- & (TGF- &5) mRNA in Xenopus laevis, The Journal of Biological Chemistry, Vol. 67 265, No. 2, January 1990 pp. 1089-1093 Kozbor, et al., The production of monoclonal antibodies from human lymphocytes, Immunology Today, Vol. 4, No.3, 1983, pp. 72-79

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EXAMINER OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) INITIAL Ladenson, et al., Comparison of Administration of recombinant human thyrotropin wiht withdrawal of thyroid hormone for radioactive iodine scanning in patients with thyroid carcinoma, The New England Journal of Medicine, September 1997, 337:888-896 70 Langer, Robert, New Methods of Drug Delivery, Science, Vol. 249, September 1990, pp. 1527-1533 Lapthorn, et al., Crystal structure of human chorionic gonadotropin, Nature, Vol. 369, June 1994, pp. 455-461 Lee, et al., Membrane-anchored Form of v-SIS/PDGF-B Induces Mitogenesis without detectable PDGF Receptor Autophosphorylation, The Journal of Cell Biology, Vol. 113, No. 2, April 1991 pp. 361-370 73 Lee, Se-Jin, Expression of growth/differentiation factor 1 in the nervous system: conservation of a bicistronic structure, Proc. Natl. Acad. Sci. USA, Vol. 88, pp. 4250-4254, May 1991 1/ 74 Leibrock, et al., Molecular cloning and expression of brain-derived neurotrophic factor, Nature, Vol. 341, September 1989, pp. 149-152 Leitoff, et al., Bioengineering of Human Thyrotropin Superactive Analogs by Site-directed "Lysine-scanning" Mutagenesis, The Journal of Biological **7**5 Chemistry, Vol. 275, No. 35, September 2000, pp. 27457-27465 Levi-Montalcini, Rita, The Nerve Growth Factor: thirty-five years later, The Nobel Foundation, 1987, pp. 1145-1154 Levison, et al., Both Oligodendrocytes and Astrocytes Develop from Progenitors in the Subventricular Zone of Postnatal Rat Forebrain, Neuron, Vol. 10, pp. 201-212, February 1993 78 Levy, et al., Inhibition of Calcification of Bioprosthetic Heart Valves by Local Controlled-Release Diphosphonate, Science, Vol. 228, April 1985, pp. 190-192 Ling, et al., Pituitary FSH is released by a heterodimer of theß-subunits from the two forms of inhibin, Nature, Vol. 321, June 1986, pp. 779-782 79 Liu, et al., The Elastogenic Effect of Recombinant Transforming growth factor-beta on porcine aortic smooth muscle cells, Biochemical and Biophysical 80 Research Communications, Vol. 154, No. 3, 1988, pp. 895-901 Lyons, et al., Vgr-1, a mammalian gene related to Xenopus Vg-1, is a member of the transforming growth factor ß gene superfamily, Proc. Natl. Acad. Sci. 81 USA, Vol. 86, pp. 4554-4558, June 1989 McDonald, et al., New protein fold revealed by a 2.3-Å resolution crystal structure of nerve growth factor, Nature, Vol. 354, December 1991, pp. 411-414 82 Mason, et al., Complementary DNA sequence of ovarian follicular fluid inhibin show precursor structure and homology with transforming growth factor-8, 83 Nature Vol. 318, December 1985, pp. 659-663 McDonald, et al., A structural Superfamily of Growth Factors Containing a Cystine Knot Motif, Cell, Vol. 73, pp. 421-424, May 1993 84 Meier, et al., Diagnostic Use of Recombinant Human Thyrotropin in Patients with Thyroid Carcinoma (Phase I/II Study), Jr. of Clinical Endocrinology and 85 Metabolism, Vol. 78, No. 1, pp. 188-196, 1994 Meyrick, et al., In Vitro Effects of Endotoxin on Bovine and Sheep Lung Microvascular and Pulmonary Artery Endothelial Cells, Jr. of Cellular Physiology, 138:165-174, 1989 Misrahi, et al., Cloning, Sequencing and Expression of Human TSH Receptor, Biochemical and Biophysical Research Communications, Vol. 166, No. 1, 87 January 1990, pp. 394-403 Miyazono, et al., Purification and Properties of an Endothelial Cell Growth Factor from Human Platelets, The Jr. of Biological Chemistry, Vol. 262, No. 9, 88 March 1987, pp. 4098-4103 Morbeck, et al., A receptor binding site identified in the region 81-95 of the ß-subunit of human luteinizing hormone (LH) and chorionic gonadotropin (hCG), / X Molecular and Cellular Endocrinology, 97 (1993) 173-181 Morrison, et al., Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains, Proc. Natl. Acad. Sci. USA, 90 Vol. 81, pp. 6851-6855, November 1984 Moses, et al., Mechanism of Growth Arrest of Chemically Transformed Cells in Culture, Cancer Research, 38, pp. 2807-2812, September 1978 91 Murray-Rust, et al., Topological similarities in TGF-B2, PDGF-BB and NGF define a superfamily of polypeptide growth factors, Structure, 1993, Vol. 7, 92 No. 2, pp. 153-159 Neuberger, et al., Recombinant antibodies possessing novel effector functions, Nature, Vol. 312, December 1984, pp. 604-608 93 Oefner, et al., Crystal structure of human platelet-derived growth factor BB, Oxford University Press, pp. 3921 - 3926 Özkaynak, et al., Osteogenic Protein-2, A New Member of the Transforming Growth Factor-& Superfamily Expressed Early in Embryogenesis, The Jr. of 95 Biological Chemistry, Vol. 267, No. 35, December 1992, pp. 25220-25227 Padgett, et al., A transcript from a Drosophila pattern gene predicts a protein homologous to the transforming growth factor-8 family, Nature, Vol. 325, January 1987, pp. 81-84

EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WIT	S IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT

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EXAMINER OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) INITIAL Parmentier, et al., Molecular Cloning of the Thyrotropin Receptor, Science, Vol. 246, pp. 1620-1622 97 Patterson, et al., Nerve Growth Factor in the Anterior Pituitary: Regulation of Secretion, Endocrinology, Vol. 135, No. 4, pp. 1697-1703, 1994 98 X Pearson, et al., Tenascin: cDNA cloning and induction by TGF-ß, The EMBO Journal, Vol. 7, No. 10, pp. 2677-2981, 1988 99 Raff, Martin C., Glial Cell Diversification in the Rat Optic Nerve, Science, Vol. 243, March 1989, pp. 1450-1455 100 Rajshankar, et al., Osteogenic inhibition by rat periodontal ligament cells: modulation of bone morphogenic protein-7 activity in vivo, Cell Tissue Research, 101 1998, 294:475-483, 1998 Roberts, et al., Type & transforming growth factor: A bifunctional regulator of cellular growth, Proc. Natl. Acad. Sci. USA, Vol. 82, pp. 119-123, January 102 1985 - Cell Biology Ryan, et al., Myofibroblasts in human Granulation Tissue, Human Pathology, Vol. 5, No. 1, January 1974, pp.55-67 103 Ryan, et al., Isolation and Culture of Pulmonary Artery Endothelial Cells, Tissue & Cell, 1978 3 pp. 535-554 104 Sarkar, et al., The "Megaprimer" Method of Site-Directed Mutagenesis, Biotechniques, Vol. 8, No. 4, pp. 404-407, 1990 105 Saudek, et al., A Preliminary Trial of the Programmable Implantable Medication system for insulin delivery, The New England Journal of Medicine, August 106 1989, pp. 574-579 Schlunegger, et al., Refined Crystal Structure of Human Transforming Growth Factor B2 at 1.95 Å Resolution, Academic Press Limited, Basel, 107 Switzerland, pp. 445-458 1993 Shipley, et al., Differential Effects of Epidermal Growth Factor, Transforming Growth Factor, and Insulin on DNA and Protein Synthesis and Morphology in 108 Serum-free Cultures of AKR-2B cells, Cancer Research, 44, 710-716, February 1984 Song, et al., Bone Morphogenetic Protein-9 Binds to Liver Cells and Stimulates Proliferation, Endocrinology, Vol. 136, No. 10, pp. 4293-4297, February 109 1995 Soory, M., Bacterial steroidogenesis by periodontal pathogens and the effect of bacterial enzymes on steroid conversions by human gingival fibroblasts in 110 culture, J. Periodont Res. 1995, pp. 124-131 Soppet, et al., The Neurotrophic Factors Brain-Derived Neurotrophic Factor and Neurotrophin-3 Are Ligands for the trkB Tyrosine Kinase Receptor, Cell, 111 Vol. 65, 895-903, May 1991 Sugahara, et al., Biosynthesis of a biologically active single peptide chain containing the human common a and chorionic gonadotropin & subunits in 112 tandem, Prot. Natl. Acad. Sci. USA, Vol. 92, pp. 2041-2045, March 1995 Sun, et al., The Cystine-Knot Growth-Factor Superfamily, Annu. Rev. Biophys. Biomol. Struct. 1995, pp. 269-291 Suter, et al., NGF/BDNF Chimeric Proteins: Analysis of Neurotrophin Specificity by Homolog-scanning Mutagenesis, The Journal of Neuroscience, 114 January 1992, pp. 306-313 Szkudlinski, et al., Human Thyroid-Stimulating Hormone: Structure-Function Analysis, Methods, 21, pp. 67-81, 2000 Χl 115 Szkudlinski, et al., Superagonists of recombinant human TSH provide a model of rational design of glycoprotein hormone analogs: site-specific bovinizatin of the alpha subunit increases in vitro and in vivo bioactivity, Thyroid, Vol. 5, Suppl. 1, September 1995 pp. S072 oral presentation Szkudlinski, et al., Engineering human glycoprotein hormone superactive analogues, Nature Biotechnology, Vol. 14, October 1996, pp. 1257-1263 117 Szkudlinski, et al., Progress in understanding structure-function relationships of human thyroid-stimulating hormone, Current Opinion in Endocrinology and $\checkmark \chi$ 118 Diabetes, 1997, 4:354-363 Szkudlinski, et al., Structure-Function Studies of Human TSH, TEM Vol. 7, No. 8, 1996, pp. 277-286 $\sqrt{\lambda}$ Szkudlinski, et al., Purification and Characterization of Recombinant Human Thyrotropin (TSH) Isoforms Produced by Chinese Hamster Ovary Cells: The 120 Role of Sialylation and Sulfation in TSH Bioactivity, Endocrinology, Vol. 133, No. 4, pp. 1490 -1503 Takeda, et al., Construction of chimaeric processed immunoglobulin genes containing mouse variable and human constant region sequences, Nature, Vol. 121 314, No. 4, April 1983, pp. 452-454 Taylor, et al., Efficient Transcription of RNA into DNA by avian sarcoma virus polymerase, Biochimica et Biophysica Acta. 442, 1976 pp. 324-330 122 Thompson, et al., Expression of Transforming Growth Factor- &1 in Specific Cells and Tissues of Adult and Neonatal Mice, The Journal of Cell Biology, 123 Vol. 108, February 1989, pp. 661-669 Tsoulfas, et al., The Rat trkC Locus Encodes Multiple Neurogenic Receptors that Exhibit Differential Response to Neurotrophin-3 in PC12 Cells, Neuron, 124 Vol. 10, May 1993, pp. 975-990 Vale, et al., Purification and characterization of an FSH releasing protein from porcine ovarian follicular fluid, Nature, Vol. 321, June 1986, pp. 776-779 125

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EXAMPLE INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
1	126	Varga, et al., Transforming growth factor ß (TGF ß) causes a persistent increase in steady-state amounts of type I and type III collagen and fibronectin mRNAs in normal human dermal fibroblasts, Biochem. J. 1987, 247, pp. 597-604
V	127	Vassart, et al., The Thyrotropin Receptor and the Regulation of Thyrocyte Function and Growth, Endocrine Reviews, Vol. 13, No. 3, pp. 596-611
	128	Weeks, et al., A Meternal mRNA Localized to the Vegetal Hemishpere in Xenopus Eggs Codes for a Growth Factor Related to TGF- B, Cell, Vol. 51, pp. 861-867, December 1987
V	129	
	100	
✓ X		Wong, et al., Transgenic Mice Bearing a Human Mutant Thyroid Hormone &1 Receptor Manifest Thyroid Function Anomalies, Weight Reduction, and Hyperactivity, Molecular Medicine, Vol. 3, No. 5, May 1997 pp.303-314
1		Wozney, et al., Novel Regulators of Bone Formation: Molecular Clones and Activities, Science Vol. 242, December 1988, pp. 1528-1534
V		Wu, et al., Receptor-mediated in Vitro Gene Transformation by a Soluble DNA Camer System, The Journal of Biological Chemistry, Vol. 262, No. 10, April 1987, pp. 4429-4432
-		Yamamoto, et al., Identification of a Functional Promoter in the Long Terminal Repeat of Rous Sarcoma Virus, Cell, Vol. 22, December 1980, pp. 787-797
		Yamazaki, et al., Potent Thyrotropic Activity of Human Chorionic Gonadotropin Variants in Terms of 125I Incorporation and de Novo Synthesized Thyroid Hormone Release in Human Thyroid Follicles, Journal of Clinical Endocrinology and Metabolism, Vol. 80, No. 2, August 1994, pp. 473-479
	136	You, et al., Bone Morphogenetic Proteins and Growth and Differentiation Factors in the Human Comea, Investigative Ophthalmology & Visual Science,
×	137	Zhang, et al., The Extracellular Domain Suppresses Constitutive Activity of the Transmembrane Domain of the Human TSH Receptor: Implications for Hormone-Receptor Interaction and Antagonist Design, Endocrinology, Vol. 141, No. 9, 2000, pp. 3514-3517

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